

Work Order ID 79939

79939

Page 1

February-07-12 3:07:43 PM

Item ID: D117-762-041

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 21/02/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: *M.C.J.*

Date: *12/02/07* Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3492	C
D3582	Rev A

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D117-762-041 CHG001

N/A

120

0.00

120

BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend tube as per program D3582 on CNC Bender and Dwg D3582. Folio 3,
use bending aid DT9632
2- cut fwd end of tube as per dwg

OK 12/02/22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Page 2

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Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

130

Skidtubes

Skidtubes

Skidtubes

Memo :

1-Cut Aft end using DT8185

2-Deburr ends

3-Drill Aft Cap holes using DT8678 *** OPEN AFT CAP HOLE TO .187" ***

4-Locate DT 8973 from aft cap holes & Drill Ground wire hole on top of Tube.

5-Install 3/16 cleco in Ground wire hole ,then drill all X-Bolt holes using 3/16" drill.

6-Drill pilot holes for wearplates using DT8900

7-Open wearplate holes to Ø19/64" (0.297") as per Dwg D3582.

8- open ground wear holes to 0.391" as per section B-B

9-Open Aft Cap holes using .209" drill.

10-Drill pilot holes for section D-D and E-E. Holes must be laid out by hand. Mark out Center line and make sure that 6.65 and 5.906 measurements are respected. Double check before drilling, do not open holes to finish size.

0.00

0:00

CF 12-3-13

12-02-22

CF 12-3-13

SAD 12-03-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Page 4

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Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170

Chemical Conversion Coat per QSI005 4.1

0.00


170

HandFinish

Memo

0.00

Hand Finishing

 12-3-16

180

QC3- Inspect Part Finish

0.00


180

QC

Memo

0.00

Quality Control

 12-3-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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 Required Date: 21/02/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Skidtubes	0.00							
190									
Skidtubes	Memo	0.00							
Skidtubes	1-Open X-Bolt holes to finish size as per Dwg D3582, all sections								
	2-Counter Sink X-BOLT holes as per Dwg D3582								
	3-Deburr and blow out chips from inside of tube, prep. tube for welding.								
	4-Bond web as per Dwg D3582 & QSI 015								
	A/R 241 Sike Flex Batch: <u>M1208/13</u> BE 12/03/17								
	Exp Date: <u>2012/03/13</u>								
	5-Weld x-bolt spacers(D2973) as per Dwg D3582 section B-B.								
	A/R AL ROD Batch: <u>M1201/09</u> BE 12/03/19								
	6-Grind welds flush								
200	QC10- Inspect visual per QSI004- ground welds	0.00							
200									
QC	Memo	0.00							
Quality Control									

CF 12-3-16

CF 12-3-19

S 12/3/12

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC5- Inspect part completeness to step on W/O	0.00							
210									
QC	Memo	0.00							
Quality Control									
215	Pressure Wash per QSI005 4.3	0.00							
215									
HandFinish	Memo	0.00							
Hand Finishing	Touch-up alodine as per QSI								
220	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
220									
Powdercoat	Memo	0.00							
Powder Coating	START TIME <u>3h50</u> OVEN TEMPERATURE: <u>320°F</u> FINISH TIME: <u>4h20</u>								

m120 222

1X Ø m/12/03/26

1 Ø (OP) 12/03/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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February-07-12 3:07:43 PM

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Page 7

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Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

230

QC3- Inspect Part Finish

0.00

230

QC

Memo

0.00

Quality Control

1 0 1403/29

250

HandFinishing

0.00

250

HandFinish

Memo

0.00

Hand Finishing

1-Inspect for Foreign objects

2-Install Aft cap as per Dwg D3582, Detail "C"

A/R 241 Sika Flex Batch: 11120813

Exp Date: 1110 02

3-Install Wearplates as per Dwg D3582,

Note: Install Bolt and washer on Ground Wire inserts on top of tube see section D-D of dwg D3582

*****Do not install bolts where indicated on Dwg(Note #6)*****

A/R 241 Sika Flex Batch: 11120813

Exp Date: 1110 02

4-assemble o'ring as per dwg D3492 and apply o'ring lube

A/R 55-o'ring lube batch: 1110348

5- Wing Walk as per Dwg D3582 and QSI 005 4.4

1 0 1403/29

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC5- Inspect part completeness to step on W/O	0.00							
260									
QC	Memo	0.00							
Quality Control									
270	Packaging	0.00							
270									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D117-762-041								
	Location: _____								
	PPP Rev: _____								
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

Sickles

SP 12-04-11

12/4/09
MF
12-04-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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February-07-12 3:07:47 PM

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Parent Item: D117-762-041

D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:A07.06.11New Issue EC

IPP Rev:B 08-02-22 change to revA as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3492-11		Manufactured	No			250	Each	26.0000	2	2			
D3492-11									**				
Plug													

Location	Loc Qty	Loc Code
FP002	26	
71863	6	
74732	20	

D3492-13		Manufactured	No			250	Each	26.0000	6	6			
D3492-13									**				
Plug													

Location	Loc Qty	Loc Code
FP001	26	
74034	26	

D3492-9		Manufactured	No			250	Each	13.0000	2	2			
D3492-9									**				
Plug													

Location	Loc Qty	Loc Code
FP002	13	
46694	13	

D2962-150		Manufactured	No				Each	49.0000		1			
D2962-150									**				
3.540 Outer Tube, Extrud													

Location	Loc Qty	Loc Code
HALL	49	
59934	49	

W/O:		WORK ORDER CHANGES					
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D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D2964

Manufactured No

140 Each

29.0000 1 1

D2964

Cap

**

BE 12/03/15

Location

Loc Qty

Loc Code

LG002

29

74719

29

D2971

Manufactured No

190 Each

34.0000 1 1

D2971

Cross Bolt Spacer

**

BE 12/03/17

Location

Loc Qty

Loc Code

LG001

34

74720

34

D3584-1

Manufactured No

190 Each

2.0000 1 1

D3584-1

Web

**

BE 12/03/17
B80849

Location

Loc Qty

Loc Code

LG

2

75189

2

D2973

Manufactured No

190 Each

58.0000 2 2

D2973

Cross Bolt Spacer

**

BE 12/03/17

Location

Loc Qty

Loc Code

LG002

58

14636

58

D3662-3

Manufactured No

190 Each

1.0000 1 1

D3662-3

Crossbolt Spacer

**

BE 12/03/17
B81606

Location

Loc Qty

Loc Code

LG001

1

44456

1

W/O:		WORK ORDER CHANGES					
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Page 3

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D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3662-1 Manufactured No

190 Each

25.0000 3 3

D3662-1

Crossbolt Spacer

**

Location

Loc Qty

Loc Code

LG001

25

71799

1

71857

24

ALS4-1032-130 Purchased No

Each

1,823.000

36

AI S4-1032-130

Insert

**

Location

Loc Qty

Loc Code

ST280

744

119084

744

ST281

1079

119632

79

120410

1000

ALS4-428-165 Purchased No

Each

469.0000

2

AI S4-428-165

Inserts

**

Location

Loc Qty

Loc Code

FP002

469

114172

18

117769

451

D2965 Manufactured No

250 Each

22.0000 1 1

D2965

Cap, 105 Skidtube

**

Location

Loc Qty

Loc Code

FP002

22

71371

22

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3508-3 Manufactured No

250

Each

11.0000

1

1

D3508-3

Wearplate

**

381347 (x1) all 12/04/05

Location

Loc Qty

Loc Code

FP001

11

38527

1

76264

10

D3508-9 Manufactured No

250

Each

6.0000

1

1

D3508-9

Wearplate

**

1381346 (x1) all 12/04/05

Location

Loc Qty

Loc Code

FP001

6

72203

6

D3558-3 Manufactured No

250

Each

11.0000

1

1

D3558-3

Gasket

**

1382312 (x1) all 12/04/05

Location

Loc Qty

Loc Code

FP002

11

71651

1

75179

10

D3558-9 Manufactured No

250

Each

4.0000

1

1

D3558-9

Gasket

**

1380340 (x1) all 11/03/04

Location

Loc Qty

Loc Code

FP002

4

71212

4

W/O:		WORK ORDER CHANGES					
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Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3558-11 Manufactured No

250

Each

5.0000

1

1

D3558-11

Gasket

**

1380339(x1) MU 12/03/29

Location

Loc Qty

Loc Code

FP002

5

72202

5

D3558-13 Manufactured No

250

Each

9.0000

1

1

D3558-13

Gasket

**

MU 12/03/29

Location

Loc Qty

Loc Code

FP002

9

59558

9

D3508-11 Manufactured No

250

Each

4.0000

1

1

D3508-11

Wearplate

**

x 1380374(x1) MU 12/03/29

Location

Loc Qty

Loc Code

FP001

4

72011

4

D3508-13 Manufactured No

250

Each

11.0000

1

1

D3508-13

Wearplate

**

MU 12/03/29

Location

Loc Qty

Loc Code

FP001

11

71027

2

71794

9

AN960JD10L NAS1149D0332J Purchased No

250

Each

0.0000

2

2

*AN960JD10I *

Washer

**

11120644(x2) MU 12/03/29

W/O:		WORK ORDER CHANGES					
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Page 6

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79939

D117-762-041

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

250

Each

3,845.000

28

28

AN3C4A

BOLT

**

11/03/24

Location

Loc Qty

Loc Code

ST350

3845

117313

2

117688

5

117872

10

118112

16

118451

2

119749

310

120187

2000

120423

500

120521

1000

1238

AN3C5A

Purchased

No

250

Each

1,336.000

2

2

AN3C5A

Bolt

**

11/03/24

Location

Loc Qty

Loc Code

FP001

7

115835

7

ST350

1329

116419

28

117343

13

117764

7

117872

2

119127

252

119749

27

120423

1000

127

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-07-12 3:07:47 PM

Page 7

Work Order ID: 79939

79939

Parent Item: D117-762-041

D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

AN960JD416L NAS1149D0416J Purchased

No

250

Each

8.0000

2

2

***AN960JD416I ***

Washer

**

11120833 (x2) 11/03/12

Location

Loc Qty

Loc Code

FP002

8

110153

8

AN960C10L NAS1149C0332 Purchased

No

250

Each

0.0000

28

28

***AN960C10I ***

washer

**

11120648 (x28) 11/03/12

AN4-4A

Purchased

No

250

Each

127.0000

2

2

***AN4-4A ***

Bolt

**

111203124

Location

Loc Qty

Loc Code

FP001

10

114615

10

ST355

117

114615

17

120187

100

X2

NAS1611-012 Purchased

No

250

Each

54.0000

6

6

NAS1611-012

O-RING

**

11120820 (x6) 11/03/12

Location

Loc Qty

Loc Code

FP001

54

113845

10

118384

44

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-07-12 3:07:48 PM

Page 8

Work Order ID: 79939

79939

Parent Item: D117-762-041

D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-015

Purchased

No

250

Each

119.0000

2

2

NAS1611-015

O-RING

**

u 12/03/12

Location

Loc Qty

Loc Code

FP001

119

115101

85

116081

34

NAS1611-016

Purchased

No

250

Each

72.0000

2

2

NAS1611-016

O-RING

**

u 12/03/12

Location

Loc Qty

Loc Code

FP001

72

112492

46

113524

26

x2

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

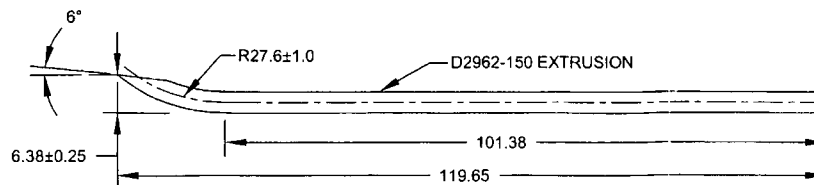
NOTE: Date & initial all entries

PARTS LIST FOR D3582-041 SKIDTUBE ASSEMBLY

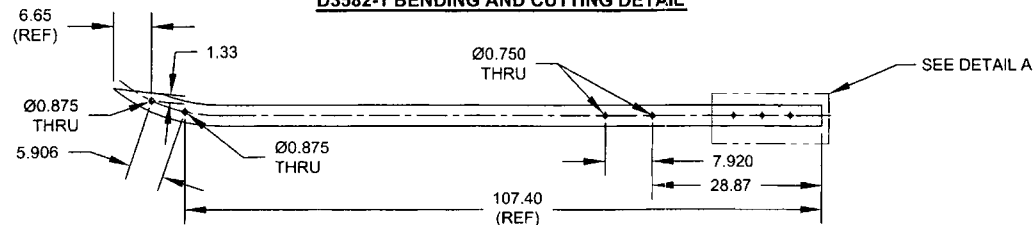
Qty	Part Number	Description
X	D3582-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2971	CROSS BOLT SPACER
2	D2973	CROSS BOLT SPACER
2	D3492-049	PLUG ASSEMBLY
2	D3492-051	PLUG ASSEMBLY
6	D3492-053	PLUG ASSEMBLY
1	D3508-3	WEARPLATE
1	D3508-9	WEARPLATE
1	D3508-11	WEARPLATE
1	D3508-13	WEARPLATE
1	D3558-3	GASKET
1	D3558-9	GASKET
1	D3558-11	GASKET
1	D3558-13	GASKET
1	D3584-1	WEB
3	D3662-1	CROSS BOLT SPACER
1	D3662-3	CROSS BOLT SPACER
36	AELS-1032-130	INSERT
2	ALS7-428-165	INSERT
28	AN3C4A	BOLT
2	AN3-5A	BOLT
2	AN4-4A	BOLT
28	AN960C10L	WASHER
2	AN960JD10L	WASHER
2	AN960JD416L	WASHER

GENERAL NOTES:

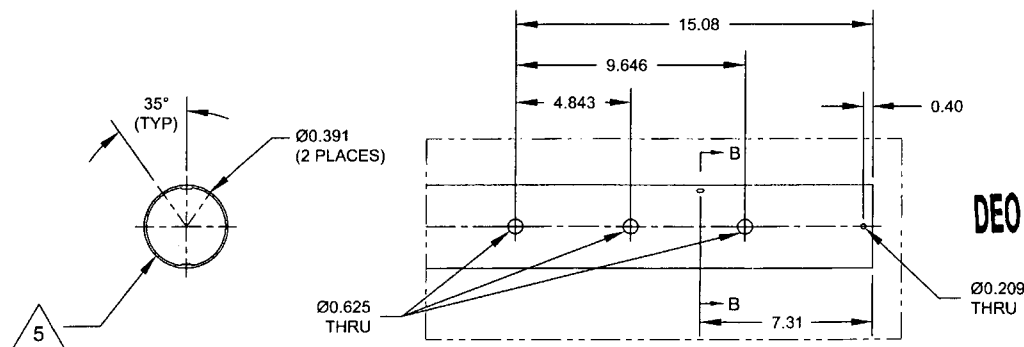
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- WELDING TO BE DONE PER DART QSI 004
- INSERT D3584-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- USE DART DRILL TEMPLATE DT8900 TO LOCATE AND DRILL Ø0.297 HOLES (36 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (36 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS.
- FINISH:
 - CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3584-1 WEB.
 - POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3.
 - ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4



D3582-1 BENDING AND CUTTING DETAIL



D3582-1 DRILLING DETAIL



SECTION B-B
SCALE 1:5

DETAIL A
SCALE 1:5

RELEASED
67-11-22

SHOP
AFTU
ENGINE
UNCONTROL
SUBJECT TO A
V. HOUT
V. HOUT
79939 M.C.J
12/02/07

REV.	DESCRIPTION	PH	DATE
A	NEW ISSUE	PH	07.06.08
DESIGN	BY	DATE	
DRAWN	BY	DATE	
CHECKED	BY	DATE	
MFG. APPR.	BY	DATE	
APPROVED	BY	DATE	
DE APPR.	BY	DATE	
DATE	07.06.08		

DART AEROSPACE USA, INC
PORT HADLOCK, WA
DRAWING NO. D3582
REV. A
SHEET 1 OF 2
TITLE BK 117 SKIDTUBE ASSEMBLY
SCALE 1:20
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SECTION D-D NOTES
AFTER BENDING AND DRILLING ASSEMBLY PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2971 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.750 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-049 PLUG ASSEMBLY (2 PLACES)

SECTION E-E NOTES
AFTER BENDING AND DRILLING ASSEMBLY PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3662-3 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.672 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-051 PLUG ASSEMBLY (2 PLACES)

SECTION F-F NOTES
AFTER BENDING AND DRILLING ASSEMBLY PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2973 SPACER (2 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.625 DRILL TO REMOVE SPILL OVER

SECTION G-G NOTES
AFTER BENDING AND DRILLING ASSEMBLY PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3662-1 SPACER (3 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.515 DRILL TO REMOVE SPILL OVER
5. AFTER FINISH, INSTALL D3492-053 PLUG ASSEMBLY (6 PLACES)

D3582-041 ASSEMBLY DETAIL

D3582-041 BLACK ANTI-SKID DETAIL

DETAIL C
SCALE 1:10





DETAIL H
SCALE 1:5

DEO ATTACHED

RELEASED

DESIGN		PART	
DRAWN	PH	DART AEROSPACE USA, INC	
CHECKED	PH	PORT HADLOCK, WA	
MFG. APPR.	PH	DRAWING NO.	REV. A
APPROVED	PH	D3582	SHEET 2 OF 2
DE APPR.	PH	TITLE	SCALE
DATE	07.06.08	BK 117 SKIDTUBE ASSEMBLY	1:20

RELEASED
07.11.22

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3582	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		BK 117 SKIDTUBE ASSEMBLY	1:20
DATE	07.06.08	COPYRIGHT © 2007 BY DART AEROSPACE USA, INC <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

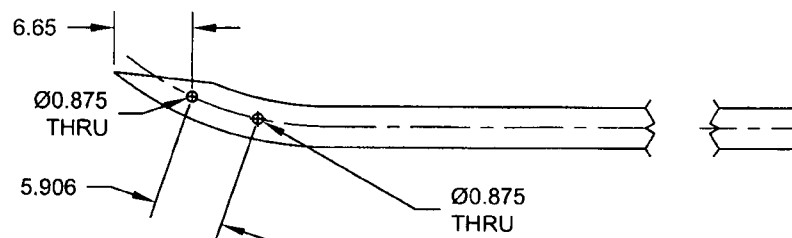
NOTE: Date & initial all entries

79939

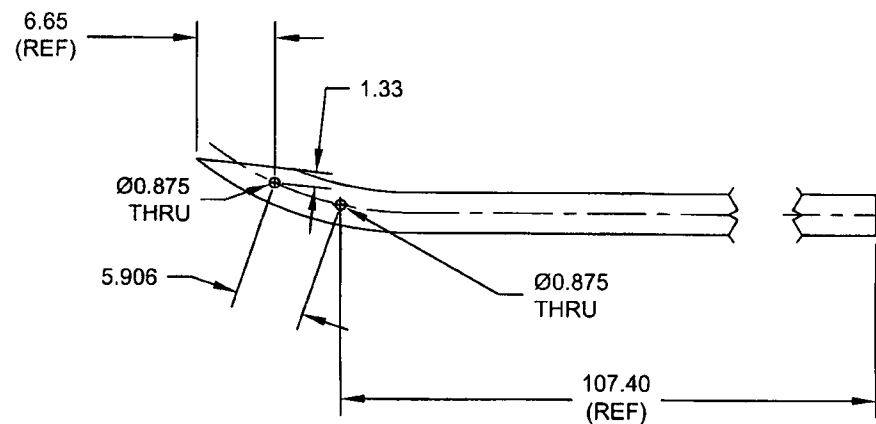
DRAWING NO. D3582	TITLE BK 117 SKIDTUBE ASSEMBLY	REV. A	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3582-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>PH</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 09.04.06	DATE 04.04.06	DATE 09.04.06	DATE 12/04/06		DATE 09.04.06		

FOR EASE OF MANUFACTURE AND TO ENSURE THE FIT OF BRISTOL WIRESTRIKE SKID GEAR DEFLECTOR:
UPDATE DIMENSIONING OF 2 FWD HOLES ON SHEET 1 AS SHOWN

IS:



WAS:



RELEASED
09/04/22 *[Signature]*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 259

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: B68574
Part number: D105-674-0110
Description: 105
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Sal Davis Date of Test Coupon 11-06-30
Welder Barclay Elliott Date of Test Coupon 11-06-30

The above named individual is qualified in accordance with AWS D17.1.2001 to weld